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When do emotionally exhausted employees speak up? Exploring the potential curvilinear relationship between emotional exhaustion and voice

XIN QIN¹, MARCO S. DIRENZO², MINYA XU^{3*} AND YILONG DUAN^{3,4}

¹Sun Yat-sen Business School, Sun Yat-sen University, China

²Graduate School of Business and Public Policy, Naval Postgraduate School, California, U.S.A.

³Guanghua School of Management, Peking University, China

⁴China Railway 16th Bureau Group Co., Ltd., China

Summary

Two studies were conducted to address the potential nonlinear relationship between emotional exhaustion and voice. Study 1 developed and tested a model rooted in conservation of resources theory in which responses to emotional exhaustion are determined by individual-level and group-level conditions that influence the perceived safety and efficacy of voice and drive *prohibitive* voice behaviors by giving rise to either resource-conservation-based or resource-acquisition-based motivation. Specifically, there was a curvilinear (U-shaped) relationship between emotional exhaustion and prohibitive voice under conditions of (i) high job security and (ii) high interactional justice climate, but a linearly negative relationship when these resources were low. Study 2 replicated and extended these findings to include an empirical examination of these effects on *promotive* versus prohibitive voice. Results confirmed the findings of Study 1, provided evidence of differences in the nomological networks of promotive and prohibitive voice, and indicated that prohibitive voice is more salient to the experience of high emotional strain. Implications of the findings and areas for future research are discussed. Copyright © 2014 John Wiley & Sons, Ltd.

Keywords: emotional exhaustion; prohibitive voice; promotive voice; job security; interactional justice climate; curvilinear; multi-level design

Employee voice can be vital to organizational performance and survival. Top managers need information from employees at lower levels of the organization because those at the top are unlikely to have all the information they need about work processes and problems (Detert & Burris, 2007; Tangirala & Ramanujam, 2008). By enacting voice, the expression of “constructive change-oriented communication intended to improve the situation” (LePine & Van Dyne, 2001, p. 326), employees help leaders respond to dynamic issues and make more effective decisions. Yet, employees are often reluctant to speak up with potentially important information (Milliken, Morrison, & Hewlin, 2003; Perlow & Williams, 2003), because this entails a degree of personal risk as even constructive suggestions implicitly challenge the status quo (Liu, Zhu, & Yang, 2010). Individuals therefore weigh the potential consequences of enacting voice and consider (i) the *perceived efficacy* of voice—whether speaking up is likely to be effective, and (ii) the *perceived safety* of voice—the risks or potential negative outcomes associated with speaking up (Morrison, 2011). As such, voice behavior depends on “an expectancy like calculus” of the likelihood of success and the relative costs and benefits of speaking up (Ashford, Rothbard, Piderit, & Dutton, 1998; Detert & Burris, 2007; Milliken et al., 2003; Morrison, 2011).

Research has shown that various contextual and individual factors impact these judgments by creating more (or less) beneficial conditions for enacting voice (cf., Morrison, 2011; Ng & Feldman, 2012). Despite these significant

*Correspondence to: Minya Xu, Guanghua School of Management, Peking University, Room 365, Guanghua School of Management, Peking University, Beijing 100871, China. E-mail: minyaxu@gsm.pku.edu.cn

advances, however, scholars have predominantly neglected to consider variations in the types of messages that are communicated. Morrison (2011, p. 397) noted that “most conceptualizations and operationalizations of voice treat it as a general umbrella construct rather than specifying the type of information that is being conveyed” and called for more nuanced conceptualizations so that research can address variance in the factors behind voice depending on the types of messages being delivered. For instance, employees may anticipate very different costs and benefits when speaking up to offer new ideas versus speaking up to raise issues of concern. Because the potential consequences of these “suggestion-focused” versus “problem-focused” messages may differ, so too will the salience of safety/efficacy perceptions and their contributing factors (Morrison, 2011).

To address this, Liang, Farh, and Farh (2012) recently made the distinction between *promotive* and *prohibitive* voice. Promotive voice refers to the expression of new ideas, suggestions, or innovations to improve organizational functioning, whereas prohibitive voice entails the expression of concerns regarding practices, incidents, or behaviors that are harmful to the organization. These two forms of voice are similar in that both challenge the status quo, but differ in a number of important ways. Promotive voice is future-oriented and aimed at realizing ideals through possible solutions that can help the organization reach its full potential. In contrast, prohibitive voice concerns both the past and future by calling attention to existing or impending factors that damage the organization and its employees. Therefore, promotive voice centers on long-term improvements and innovation, while prohibitive voice stems from immediate concerns for stopping or preventing harm.

A related issue is that despite an emphasis in the literature that “self-protective motives play a central role in the decision of whether or not to voice” (Morrison, 2011, p. 383), Ng and Feldman (2012, p. 216) noted that most research assumes *other*-focused motives behind voice (e.g., reciprocity for positive experiences with coworkers and/or the organization) and “has largely ignored the possibility that employees use voice to regulate *personal* resources as well.” In response, these scholars used conservation of resources (COR) theory (Hobfoll, 1989) to examine the connection between stress and voice and the motivation to use voice as a means to protect or acquire personally valued resources.

We build on the work of these scholars, and address these inter-related issues, by examining employees’ use of both promotive and prohibitive voice in response to emotional exhaustion. Emotional exhaustion is the core component of job burnout (Cordes & Dougherty, 1993; Wright & Bonett, 1997; Wright & Cropanzano, 1998) and characterized by a lack of energy and a feeling that one’s emotional resources are thoroughly depleted (Maslach, 1982). Job and organizational sources of emotional exhaustion include workload, time pressure, role ambiguity, lack of autonomy and control, and organizational policies or actions that violate perceptions of fairness and the psychological contract (cf., Maslach, Schaufeli, & Leiter, 2001). Although emotional exhaustion can also stem from non-work sources (e.g., family demands and pressures), this study is primarily concerned with emotional exhaustion arising from the work domain and the voice behaviors directed at these factors. Examining differences in the relationships between organization-based emotional exhaustion and promotive and prohibitive voice is important because self-protective motives, such as reducing work-based strain, may be more relevant to problem-focused forms of voice, like prohibitive voice (Morrison, 2011), whose content can be expected to directly address these contributing factors.

Furthermore, clarifying the emotional exhaustion–voice relationship is valuable because both positive and negative associations are plausible. Assuming that employees attribute their emotional exhaustion to the actions or policies of the organization and/or its members, they may be more likely to enact voice in hopes of obtaining additional resources to deal with these work-based stressors (Dundon & Gollan, 2007). Conversely, because speaking up can be socially and professionally risky, while also costing valuable time and energy, emotionally exhausted workers may be less likely to voice so as to conserve what remains of their already diminished emotional resources (Bolino & Turnley, 2005). Consequently, the prospect of both positive and negative associations speaks to the potential for complex curvilinear relationships, a notion consistent with prior findings regarding voice (e.g., Tangirala & Ramanujam, 2008).

Moreover, the shape and size of these relationships will depend on the anticipated costs and benefits, and therefore the perceived safety and efficacy, that are uniquely associated with either promotive or prohibitive voice. In line with prevailing theory that individual and contextual resources affect the motivation to voice through these perceptions

(cf., Morrison, 2011), we investigate the influence of one individual resource (job security) and one contextual resource (interactional justice climate) on the relationships between emotional exhaustion and these two distinct types of voice. Job security provides a sense of personal control (DiRenzo & Greenhaus, 2011), which can encourage workers to voice (Tangirala & Ramanujam, 2008). Similarly, because employees look for cues regarding whether their context is conducive to speaking up (Morrison, 2011), interactional justice climate, characterized by feelings of fairness and respect (Mayer, Nishii, Schneider, & Goldstein, 2007), should promote voice as well. Therefore, these resources are expected to provide positive conditions for speaking up as each should allow individuals to feel more comfortable taking risks and have a greater expectation that it will be effective. That is, these resources should increase perceptions of safety and efficacy and favorably impact the cost/benefit ratio of voice.

As such, we present two multi-level studies that examine how individual-level and group-level resources may impact “when” emotional exhaustion is likely to trigger voice behavior. In particular, we illustrate the conditions under which emotional exhaustion may have a curvilinear versus negative-linear relationship with voice contingent upon varying perceptions of job security and interactional justice climate. First, in Study 1, we build on Ng and Feldman (2012) and integrate the competing tenets of the conservation of resources (COR) theory (Hobfoll, 1998) to present and test a model of prohibitive voice that incorporates the potential for both *resource-conservation-based* and *resource-acquisition-based* responses to emotional exhaustion. In Study 2, we replicate the findings, examine whether these factors are differentially salient to the expression of promotive versus prohibitive voice, and provide evidence for differences in their nomological networks. We elaborate on these and other contributions in the discussion section and suggest avenues for future research.

Theory and Hypotheses

Emotional exhaustion and voice: Resource conservation versus resource acquisition

Following Hobfoll’s COR theory (1989, 2002), we propose that emotionally exhausted employees strategically use voice as a means to protect or acquire resources. COR theory states that “people strive to obtain, retain and protect that which they value” (Hobfoll, 1998, p. 55) including various physical and emotional resources. It consists of two competing tenets, “resource conservation” and “resource acquisition,” which present contrasting predictions regarding the use of voice in the workplace. The “resource-conservation” tenet argues that “resource loss is disproportionately more salient than resource gain” (Hobfoll, 1998, p. 62) and individuals with limited resources are unlikely to invest time and energy into situations where gains are problematic or limited (Ito & Brotheridge, 2003). Therefore, because challenging the status quo can incur higher stress and requires expending valuable cognitive and emotional resources (e.g., Bolino & Turnley, 2005; Luria, Gal, & Yagil, 2009; Ng & Feldman, 2012), *resource-conservation* motives make workers unlikely to speak up in response to emotional exhaustion because they need to protect their remaining energy from further depletion (Halbesleben & Bowler, 2007; Siegal & McDonald, 2004). On the other hand, the less discussed “resource-acquisition” tenet of COR theory argues that “people must invest resources in order to protect against resource loss, recover from losses, and gain resources” (Hobfoll, 1998, p. 63). This tenet argues that *resource-acquisition* motives will drive workers to voice concerns over emotion exhaustion so as to alleviate their strain and regain lost stores of energy (Ng & Feldman, 2012). By speaking up, employees can call attention to the factors causing exhaustion and convince leaders to provide resources to buffer the stress and/or bring an end to the policies and practices that are taking the emotional toll.

Recent meta-analysis has predominantly offered support for adopting the resource-conservation perspective with regard to job and organizational stressors (Ng & Feldman, 2012). Nevertheless, in line with Hobfoll’s (2001, p. 349) contention that “[individuals] with greater resources are less vulnerable to resource loss and more capable of orchestrating resource gain,” we suggest that there are conditions under which resource-acquisition motives may be elicited, thereby making individuals increasingly likely to voice concerns in response to high levels of emotional

exhaustion. Specifically, we suggest that although initial reactions to emotional exhaustion fall in line with resource-conservation motives, the presence of certain job and climate-based resources can help trigger acquisition-based responses once emotional exhaustion reaches high levels and stores of emotional energy are sufficiently depleted (Figure 1). We test this model in Study 1 with specific regards to prohibitive voice and extend our analysis to include a comparison of the effects on both prohibitive and promotive voice in Study 2.

Voice has been related to positive attitudes toward jobs and organizations (Frese, Teng, & Wijnen, 1999; Spencer, 1986; Van Dyne & LePine, 1998) and can help workers feel more empowered and engaged at work (Conger & Kanungo, 1988; Ford & Fottler, 1995). Therefore, as reflected in Figure 1, individuals are expected to enact voice at very low levels of emotional exhaustion in reciprocation for the positive treatment (i.e., low personal strain) that they experience in their employment relationship (e.g., Burris, Detert, & Chiaburu, 2008; Choi, 2007). But, as modest levels of emotional exhaustion begin to accrue (low to medium levels), resource-conservation motives will drive behavior and initially decrease the expression of voice. As stated previously, increasing exhaustion will induce individuals to conserve energy so as to not become emotionally drained (Halbesleben & Bowler, 2007; Siegall & McDonald, 2004). Calling attention to the sources of their exhaustion carries certain risks, such as stirring adverse reactions or being viewed negatively by others in the organization (e.g., LePine & Van Dyne, 1998; Liang et al., 2012; Morrison & Milliken, 2000). Hence, at this point, the potential benefits of prohibitive voice are rather moderate (i.e., alleviating fairly low levels of emotional exhaustion), whereas the potential costs are comparatively high (i.e., time, energy, retribution, and heightened strain). Because employees enact voice when expected benefits outweigh the costs (e.g., Detert & Burris, 2007; Milliken et al., 2003), it is simply not worth the risk or effort to speak up over initial increases in emotional exhaustion, and individuals will prefer instead to conserve remaining stores of energy rather than risk depleting them any further.

But, as reflected by the diverging lines in Figure 1, we suggest that a breaking point exists where some employees' cost–benefit ratios can fundamentally change, contingent on resources that empower workers with greater perceived safety and efficacy. Voice is more common among individuals that do not fear reprisal or backlash for their actions (high safety, less costs) and anticipate greater receptivity to their thoughts and ideas (high efficacy, more benefits) (Ashford et al., 1998; Edmondson, 1999; Liang et al., 2012). Therefore, factors contributing to these perceptions may encourage workers to speak up (Morrison, 2011) by allowing them to reach an emotional exhaustion threshold (Figure 1), at which point the risks associated with prohibitive voice (both in the sense of having little energy left to lose and limited fear of reprisal) no longer outweigh the need to change the status quo and the perceived capacity to regain emotional resources. Hence, we suggest that the emotional exhaustion threshold represents the inflection point where resource-acquisition motives can be triggered, with this transition dependent upon resources that allow workers to believe prohibitive voice can be safe and effective and, as a result, to anticipate more will be gained than

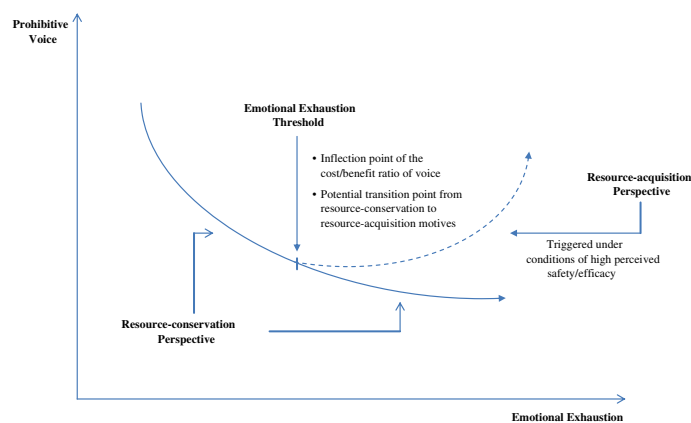


Figure 1. Responding to emotional exhaustion with prohibitive voice: The resource-protection-based perspective versus resource-acquisition-based perspective

lost by speaking up. After this threshold, these workers become increasingly likely to use prohibitive voice as the cost/benefit ratio increasingly tips in favor of speaking up at progressively higher levels of personal strain. Therefore, the emotional exhaustion threshold denotes the transition from resource-conservation motives to resource-acquisition motives and creates a curvilinear (U-shaped) relationship in which individuals are likely to voice concerns when experiencing high or low levels of emotional exhaustion but unlikely to do so at medium levels. Conversely, without access to resources that foster perceived safety and efficacy, workers cannot reach an emotional exhaustion threshold and therefore continue to be driven by resource-conservation motives and exhibit a negative-linear emotional exhaustion–prohibitive voice relationship.

As mentioned previously, we propose that job security and interactional justice climate represent two resources that can enable employees to reach an emotional exhaustion threshold and ignite resource-acquisition motivation at high levels of emotional exhaustion. As such, we suggest that both individual-level and group-level resources can impact the shape and nature of the emotional exhaustion–voice relationship. In the sections that follow, we discuss how these particular resources can impact the perceived costs and benefits of speaking up and thereby moderate the relationship between emotional exhaustion and prohibitive voice.

Individual level: The moderating role of job security

Job security refers to one's perception and expectation of future job continuity within the organization (Kraimer, Wayne, Liden, & Sparrowe, 2005). As psychological contracts between employees and employers have weakened and the labor market has grown increasingly turbulent (Greenhaus, Callanan, & DiRenzo, 2008), job security and the belief in continued employability is a valuable resource that provides piece of mind and stability in a progressively volatile career context (DiRenzo & Greenhaus, 2011). In contrast, employees who lack job security face the continuous threat of being laid off and are much more likely to withdraw and leave the organization (Griffeth, Hom, & Gaertner, 2000; Zhou & George, 2001) either involuntarily or in pursuit of greater security. Being confronted with these contrasting realities is likely to cause employees with varying degrees of job security to respond to emotional exhaustion levels above the threshold quite differently.

For instance, as stated earlier, workers engage in prohibitive voice at low levels of emotional exhaustion and initially adhere to resource conservation by becoming less likely to voice concerns as exhaustion increases to medium levels. But, as employees' emotional exhaustion extends past the threshold and they consider the outcomes of voicing concerns, individuals with low job security confront much higher potential costs than those with high job security. Employees with little security have greater uncertainty in their jobs (Hartley, Jacobson, Klandermans, & van Vuuren, 1991) and thus are likely to be much more concerned with potential negative reactions by their supervisors and possibly fearful of organizational retribution in the form of being let go. Moreover, a possible reason for their lack of job security is that they may be easily replaced or not highly valued by the organization, thereby increasing the likelihood that prohibitive voice on their part will not be rewarded, but rather dismissed and removed. Hence, individuals with low job security are not likely to voice issues in response to high emotional exhaustion so as to conserve arguably their most important resource—the job itself.

Conversely, employees with high job security perceive fewer costs and greater benefits to prohibitive voice. Not only will they be less concerned with losing their jobs, but also because they anticipate remaining with the organization over the long term, they have much to gain from challenging the status quo. Therefore, at points beyond the threshold, employees may believe that any additional negative consequences that could arise from enacting prohibitive voice pale in comparison to the potential benefits of igniting change. Moreover, in contrast to those with low security, employees with high job security are more likely to be valued assets whose skills and knowledge are difficult to substitute, making organizations more responsive to these workers' expressions of concerns so as to not lose their talents. As such, high job security should instill a greater sense of safety and efficacy regarding prohibitive voice and make employees more inclined to speak up about the factors causing their strain.

Hypothesis 1: Individual-level job security moderates the relationship between emotional exhaustion and prohibitive voice such that the relationship is (i) linearly negative when job security is low but (ii) U-shaped when job security is high.

Group level: The moderating role of interactional justice climate

Foundation climates refer to “those shared perceptions for larger, more encompassing environments and related phenomena” (Wallace, Popp, & Mondore, 2006, p. 682). Supervisors cultivate foundation climates through their general commitment to and treatment of employees. As such, we focus on interactional justice climate to illustrate foundation climate within groups. Interactional justice climate is assessed by the respect and propriety with which people feel they are treated at the group level (Mayer et al., 2007). Supervisors can create high interactional justice climate by treating subordinates with fairness and respect, which results in reciprocal social exchange and enhanced trust, openness, and loyalty among employees (Blau, 1964). As such, supervisors play a vital role in the voicing process (Detert & Burris, 2007), and potential supervisor reactions are an important determinant of voice behaviors (Milliken et al., 2003).

In this vein, we expect interactional justice climate to impact the perceived costs and benefits of enacting prohibitive voice in response to emotional exhaustion. By its very nature, prohibitive voice entails pointing out problems and issues, which may include a direct or implied criticism of supervisory behaviors and policies (Liang et al., 2012). Therefore, the degree to which employees anticipate that supervisors will react to their concerns with respect is likely to influence voice behavior. In groups characterized by low interactional justice, employees likely expect minimal benefits from prohibitive voice because their supervisors are unlikely to act on employees’ concerns and are not mindful of, or particularly interested in, treating subordinates fairly. Moreover, employees may anticipate supervisory responses that entail further costs such as reprimands or reducing their chances for promotion and career progression. With negligible potential benefits and high perceived costs, employees working in groups with low interactional justice climates are unlikely to engage in prohibitive voice in response to emotional exhaustion so as to conserve emotional resources and protect themselves from the potential wrath of supervisory reactions.

In contrast though, high interactional justice climate should enable employees to associate greater benefits and fewer costs with prohibitive voice. Supervisors who treat employees with fairness and respect are more agreeable toward their subordinates (Mayer et al., 2007) and apt to show genuine concern for employees experiencing high emotional strain. These supervisors will want to help employees reacquire stores of emotional energy, and employees can expect they will listen to their concerns with respect, provide them with resources to buffer the strain, and attempt to relieve their exhaustion by amending policies or taking the time to explain why they cannot (Cropanzano, Prehar, & Chen, 2002). Consequently, workers in high interactional justice climates will perceive an environment that is favorable for enacting voice (Morrison, 2011), enabling them to reach an emotional exhaustion threshold after which they become more likely to speak up in an effort to regain depleted stores of emotional energy.

Hypothesis 2: Group-level interactional justice climate moderates the relationship between emotional exhaustion and prohibitive voice such that the relationship is (i) linearly negative when interactional justice climate is low but (ii) U-shaped when interactional justice climate is high.

Study 1

Participants and procedures

Questionnaires were distributed to workers in 33 groups from eight different sites of a large construction company in four provinces and municipalities in China (Shandong, Fujian, Guangxi, and Beijing) in 2011. All participants were assured anonymity and given some daily necessities as compensation for their time. In total, 750 questionnaires were

provided to workers with 663 ultimately retrieved. Among the returned questionnaires, 621 were considered reliable, comprising 93.67 percent of the total returned sample. Along with on-site survey administration, it is worth mentioning that *guanxi* (personal relationships and social networks) helped to ensure our relatively high response rate. Among the 621 respondents, 95.49 percent were males ($N=593$), and the mean age and tenure were 35.48 and 6.47 years. On average, respondents had 9 years of education since elementary school (equivalent to a degree of junior high school in China). They worked as welders, carpenters, bricklayers, or other construction jobs. The number of employees in each group ranged from 4 to 36, with an average group size of 19.

Most of the measurement scales were originally written in English and were translated into Chinese following Brislin's (1980) "back translation" procedures. All the scales below were measured using a 5-point Likert format. Because the data were collected from one source—employees, we did a correction for common source bias. Following the split-sample technique (Ostroff, Kinicki, & Clark, 2002; Podsakoff, MacKenzie, & Podsakoff, 2012), we randomly split our sample ($N=621$) into datasets A ($N=334$) and B ($N=287$) for each group in order to obtain measures from different sources. Responses from dataset A were used to obtain aggregate measures. These aggregated scores then were assigned to corresponding respondents in dataset B so that the group-level variable (interactional justice climate) is from another source.

Because Bliese and Halverson (1998) demonstrated that biases in using aggregate scores diminish with groups of eight or more, we conducted the following way to split the sample in line with Ostroff et al. (2002). For those groups whose sizes were 16 or more, we randomly split the sample in half. For those groups whose sizes were less than 16 but greater than eight, we randomly selected eight samples into dataset A for aggregation. For those groups whose sizes were eight or less, we randomly selected one sample into dataset B and put the remaining into dataset A to allow as many samples as possible for aggregation (Bliese & Halverson, 1998; Ostroff et al., 2002).

Measures

Emotional exhaustion

Emotional exhaustion was assessed using the five-item scale developed by Schaufeli, Leiter, Maslach, and Jackson (1996). An example item is "The job makes me feel physically and mentally tired" (total sample: $\alpha = .89$, dataset B: $\alpha = .90$).

Job security

Employee job security was assessed with Kuhnert and Vance's (1992) five-item job security scale. An example item is "I can be sure of being employed in my organization as long as I do good work" (total sample: $\alpha = .83$, dataset B: $\alpha = .93$).

Prohibitive voice

We measured individuals' prohibitive voice using the five-item scale developed by Liang et al. (2012). Two example items are "Speak up honestly with problems that might cause serious loss to the work unit, even when/though dissenting opinions exist" and "Proactively report coordination problems in the workplace to the management" (total sample: $\alpha = .85$, dataset B: $\alpha = .86$).

Interactional justice climate

Responses from dataset A were used to obtain aggregate measures of interactional justice climate. We measured perceived interactional justice using the six-item scale developed by Moorman (1991) ($\alpha = .88$). An example is "My supervisor considered my viewpoint." We then aggregated the individual perceptions to form a group-level variable. The range of $r_{wg(j)}$ for our dataset was (0.59, 0.98) with median $r_{wg(j)} = .95$. Both the F -test and the intraclass correlation coefficients (ICC) produced acceptable values ($F(32, 301) = 3.65$, $p < .001$; $ICC[1] = .21$; $ICC[2] = .73$). Statistics calculated based on the total sample were similar ($\alpha = .90$; median $r_{wg(j)} = .94$; $F(32, 593) = 2.68$, $p < .001$; $ICC[1] = .08$; $ICC[2] = .63$).

Control variables

We measured gender, age, education level, industrial tenure, and relation with supervisor because of their potential impact on prohibitive voice behaviors (Spector & Brannick, 2011). Prior research found that demographic variables may influence voice (e.g., Detert & Burris, 2007; LePine & Van Dyne, 1998). For instance, highly educated employees tend to have more ideas to voice (e.g., Liang et al., 2012), experienced employees reflected by age and tenure are more comfortable and dare to voice (e.g., Tangirala & Ramanujam, 2008), and employees having high-quality relationships with supervisors perceive lower risks with speaking up (e.g., Van Dyne, Kamdar, & Joireman, 2008). Employees' gender was coded as 1 = "male" and 0 = "female." We measured education level by asking respondents to report their years of education and measured industrial tenure by their number of years employed in the current industry. To assess relation with supervisor, respondents answered the question "What is the relation between you and your supervisor?" with either "my relative," "my fellow-townsmen or fellow-townswoman," or "other." We note that controlling for locations in statistical tests did not alter the results presented.

Results and discussion

We conducted multi-level Confirmatory Factor Analysis (CFA) using Mplus 6.0 to ensure that the four studied variables were distinct. The four-factor measurement model (emotional exhaustion, job security, interactional justice, and prohibitive voice) provided the better fit to the data ($\chi^2 = 313.00$, $df = 183$, $p < .001$; SRMR = .04, RMSEA = .03, CFI = .97, TLI = .96 for the total sample), compared with the alternative three-factor model (job security and interactional justice were combined) ($\Delta\chi^2 = 412.50$, $\Delta df = 3$, $p < .001$). The four-factor measurement model also provided better fit to the data than the other alternative models. Detailed comparisons with other alternative model are available from the corresponding author.

Table 1 presents the means, standard deviations, and correlations of all studied variables. We utilized hierarchical linear modeling (HLM) to examine our hypotheses using dataset B. First, we ran a one-way analysis of variance with random effects in Model 1. Significant result of the Chi-square test ($\Delta\chi^2 = 2.98$, $\Delta df = 1$, $p < .05$) indicated that hierarchical linear modeling is suitable for the dataset. ICC[1] = 5.5 percent, showing that 5.50 percent of the variance of prohibitive voice came from the groups. Second, in Model 2, we included control variables, while we added emotional exhaustion and emotional exhaustion-squared in Model 3. Hypothesis 1 predicts that emotional exhaustion has a negative relationship with prohibitive voice when job security is low (Hypothesis 1a) and a U-shaped relationship with prohibitive voice when job security is high (Hypothesis 1b). As shown in Table 2, the results in Model 5 revealed that job security significantly moderated the relationship between emotional exhaustion-squared and prohibitive voice ($\hat{\gamma} = .13$, $p < .05$). To further analyze the quadratic-by-linear interaction effect, we tested simple slopes of the HLM corresponding to low (<mean) and high (>mean) levels of job security (Aiken & West, 1991). In the condition of low job security, results indicated that the relationship between emotional exhaustion and prohibitive voice was linearly negative as reflected by a non-significant coefficient for emotional exhaustion-squared ($\hat{\gamma} = .04$, ns) and a significant coefficient for emotional exhaustion ($\hat{\gamma} = -.24$, $p < .01$) when emotional exhaustion-squared was not included. Conversely, in the condition of high job security, the relationship between emotional exhaustion and prohibitive voice was U-shaped as reflected by the significant coefficient for emotional exhaustion-squared ($\hat{\gamma} = .16$, $p < .01$).

To illustrate the interactions in depth, we represented the interactions with curvilinear relationships following Aiken and West's (1991) graphing suggestions. We depicted the interaction at two levels of job security, plus and minus one standard deviation. Figure 2 illustrates that emotional exhaustion indeed had a linearly negative relationship with prohibitive voice when job security was low but a U-shaped relationship with prohibitive voice when job security was high. Thus, Hypotheses 1a and 1b were supported.

We also predict that emotional exhaustion has a negative relationship with prohibitive voice when interactional justice climate is low (Hypothesis 2a) and a U-shaped relationship with prohibitive voice when interactional justice climate is high (Hypothesis 2b). The results in Model 7 revealed that interactional justice climate significantly moderated the relationship between emotional exhaustion-squared and prohibitive voice ($\hat{\gamma} = .40$, $p < .001$). Similar to

Table 1. Means, standard deviations, and correlations in Study 1^a.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Gender	0.95	0.21									
2. Age	35.42	10.18	-.03								
3. Education	9.04	2.87	.11	-.37***							
4. Industrial tenure	6.37	5.61	.05	.46***	-.20***						
5. Relation with supervisor: relative (relative = 1, others = 0)	0.08	0.27	-.06	.00	.05	.06					
6. Relation with supervisor: fellow-townsmen or fellow-townswoman (fellow-townsmen or fellow-townswoman = 1, others = 0)	0.37	0.48	-.01	.18**	-.14*	.13*	-.22***				
7. Emotional exhaustion	2.64	0.85	.05	-.09	.13*	-.05	-.07	-.02			
8. Job security	3.34	0.48	-.01	.02	.00	.12*	.06	.04	-.22***		
9. Interactional justice climate ^b	3.37	0.35	-.05	.17**	-.11	.05	.02	.21***	.06	.15**	
10. Prohibitive voice	3.49	0.66	.05	.08	-.01	.15**	.07	-.01	-.23***	.38***	.12*

^a*N*(group) = 33.^bGroup level.**p* < .05. ***p* < .01. ****p* < .001.

Table 2. Hierarchical linear modeling (HLM) results: The effects of job security and interactional justice climate on the relationship between emotional exhaustion and prohibitive voice in Study 1.

Level and variables	Prohibitive voice						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	3.49***	3.33***	3.25***	3.25***	3.23***	2.28***	2.97***
Gender		0.17	0.17	0.18	0.19	0.18	0.14
Age		0.00	0.00	0.00	0.00	0.00	-0.00
Education		-0.00	0.00	0.00	-0.00	0.01	0.01
Industrial tenure		0.02*	0.02*	0.01	0.01	0.02*	0.02**
Relation with supervisor: relative		0.14	0.07	0.06	0.02	0.05	0.04
Relation with supervisor: fellow-townswoman or fellow-townswoman		-0.05	-0.06	-0.07	-0.08	-0.08	-0.08
Emotional exhaustion			-0.21***	-0.14***	-0.13**	-0.21***	-1.78***
Emotional exhaustion-squared			0.12**	0.10**	0.15***	0.12***	-1.23**
Job security				0.46***	0.32***		
Job security × emotional exhaustion					0.15*		
Job security × emotional exhaustion-squared					0.13*	0.29*	0.09
Interactional justice climate							0.46***
Emotional exhaustion × interactional justice climate							0.40***
Emotional exhaustion-squared × interactional justice climate							.34
σ^2	.41	.40	.36	.31	.30	.36	.02
τ (intercept)	.02	.03	.03	.04	.04	.02	.17
Variance explained ^a		.02	.12	.24	.27	.12	.287
<i>N</i> (level 1)	287	287	287	287	287	287	33
<i>N</i> (level 2)	33	33	33	33	33	33	514.90
-2 log likelihood	571.97	562.65	536.33	500.63	488.51	531.81	

^aThe proportion was calculated based on the parameters in Model 1.* $p < .05$. ** $p < .01$. *** $p < .001$.

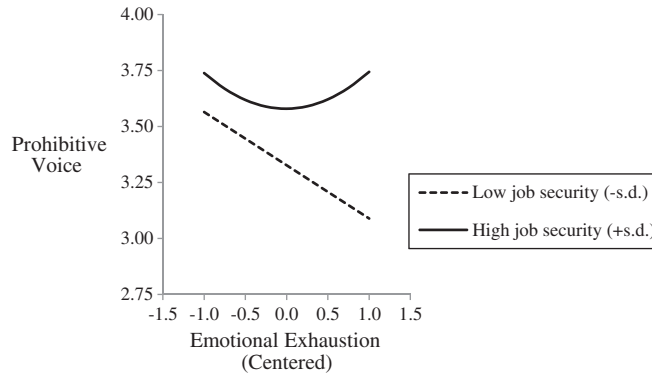


Figure 2. Relationship between emotional exhaustion and prohibitive voice as a function of job security (Study 1)

Hypothesis 2, we found that in the condition of low interactional justice climate, the relationship between emotional exhaustion and prohibitive voice was linearly negative as the coefficient for emotional exhaustion-squared was not significant ($\hat{\gamma} = .05, ns$), while the coefficient for emotional exhaustion was significant when emotional exhaustion-squared was not included ($\hat{\gamma} = -.36, p < .001$). Conversely, in the condition of high interactional justice climate, the relationship between emotional exhaustion and prohibitive voice was U-shaped as reflected by a significant coefficient for emotional exhaustion-squared ($\hat{\gamma} = .17, p < .001$). Figure 3 illustrates that emotional exhaustion indeed had a negative-linear relationship with prohibitive voice when interactional justice climate was low and had a U-shaped relationship with prohibitive voice when interactional justice climate was high. Thus, Hypotheses 2a and 2b were also supported.

Study 1 explored the relationship between emotional exhaustion and prohibitive voice and offers preliminary evidence as to when emotionally exhausted employees feel compelled and empowered to speak up. Nevertheless, although we employed the split-sample method to minimize and account for bias, multi-source research designs that use coworker or supervisor ratings of voice would provide stronger support for the causal inferences of the study's relationships. Additionally, although research has suggested that prohibitive voice may be more salient in certain situations (Liang et al., 2012; Morrison, 2011) and Study 1 provides initial evidence as to its prominent role under situations of stress, it will be useful to explore the impact of emotional exhaustion and its potential moderators on both prohibitive and promotive voice. Doing so would enable a more holistic examination of voice while also helping to distinguish the conceptual composition of these two types of voice. These issues are addressed in Study 2.

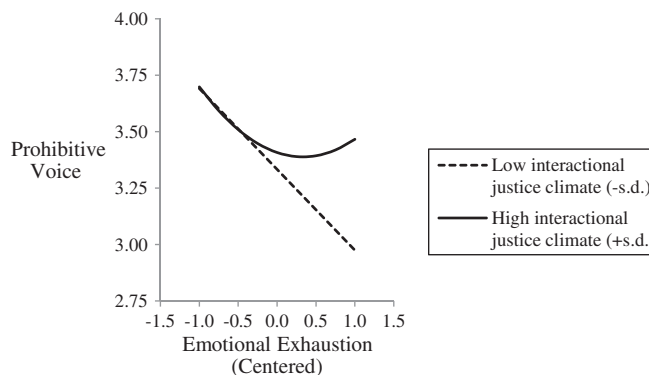


Figure 3. Relationship between emotional exhaustion and prohibitive voice as a function of interactional justice climate (Study 1)

Study 2

Prohibitive versus promotive voice

Although Study 1 contributes to the limited research addressing the antecedents and conditions that give rise to prohibitive voice, we extend this contribution by examining the hypothesized relationships with respect to both promotive and prohibitive voice so as to clarify potential similarities and differences among their nomological networks. As noted earlier, although the two forms of voice are similar in that they are change-based and challenge the status quo, they differ in the sense that promotive voice is aimed toward the future and achieving organizational ideals, while prohibitive voice targets immediate needs to stop harmful policies, practices, and behaviors. Given this distinction, promotive or prohibitive voice may be more relevant to certain situations or under certain conditions (Liang et al., 2012; Morrison, 2011). As such, this study also seeks to explain and test the salience of promotive versus prohibitive voice at high and low levels of emotional exhaustion under varying degrees of job security and interactional justice climate.

As discussed in detail earlier, voice motivation and behavior are contingent on the perceived safety and efficacy of speaking up (Morrison, 2011). Resources like job security and interactional justice climate may impact these perceptions and thereby influence the anticipated costs and benefits of using voice in response to high and low levels of emotional exhaustion. Specifically, we have theorized that at low levels of emotional exhaustion, individuals are driven by resource-conservation motives and exhibit a negative association between emotional exhaustion and voice regardless of the presence of these resources. But, at high levels of emotional exhaustion (past the threshold), individuals empowered with these resources are driven by resource-acquisition motives and exhibit a positive association between emotional exhaustion and voice, while those without these resources continue to conserve their emotional energy.

It is important, though, to recognize that the strengths of these relationships will vary with regard to the type of voice being considered (Morrison, 2011). For instance, promotive voice refers to “employees’ extra efforts to develop novel suggestions and solutions aimed at improving the organizational status quo” (Liang et al., 2012, p. 76). But, generating innovative ideas and solutions cannot be achieved without sustained cognitive effort and attention (Farh, Tangirala, & Liang, 2010). Hence, when considering the costs of promotive voice, it takes extensive time and energy not only to develop viable methods that may alleviate emotional exhaustion but also to continue monitoring the implementation and success of these ideas. Prohibitive voice, on the other hand, does not require the same level of effort. Although prohibitive voice may be more personally risky, it takes considerably less energy to enact (Liang et al., 2012; Morrison, 2011). Therefore, when engaged in resource conservation (at low levels of emotional exhaustion or when exhaustion is high but job security or interactional justice climate is low), individuals are even less likely to use promotive voice than prohibitive voice because it entails expending greater cognitive and emotional resources.

Alternatively, while promotive voice is focused on long-term improvements and ideals, prohibitive voice aims to put an immediate end to pressing or urgent harms. It stands to reason that high levels of emotional strain represent a pressing and immediate concern, suggesting that prohibitive voice is the more relevant and efficient response. Therefore, once past the emotional exhaustion threshold and engaged in resource acquisition (at high levels of emotional exhaustion and when job security or interactional justice climate is high), individuals will desire immediate relief from their emotional strain and are unlikely to be as concerned with reaching organizational ideals or bothered with ideas focused toward the future. As such, under these conditions, individuals are more likely to use prohibitive voice as a means to directly and more expeditiously alleviate their strain.

Hypothesis 3: When (i) individual-level job security or (ii) group-level interactional justice climate is low, emotional exhaustion has a stronger negative association with promotive voice than prohibitive voice.

Hypothesis 4: When (i) individual-level job security or (ii) group-level interactional justice climate is high, emotional exhaustion has a stronger negative association with promotive voice than prohibitive voice at low levels of emotional exhaustion but a stronger positive association with prohibitive voice than promotive voice at high levels of emotional exhaustion.

Participants and procedures

We administered the second survey at five construction sites in a southern province of China in 2013. These construction sites belong to different companies and are different from the one surveyed in Study 1. All participants were assured anonymity and given some daily necessities as compensation for their time. We distributed 600 questionnaires. For each participant, one of his or her immediate coworkers who could observe and have knowledge of the participant's behavior was invited to rate the focal employee's voice behavior. We obtained 315 usable surveys with matched coworker ratings (a final response rate of 52.50 percent). Among the 315 respondents, 93.97 percent were male, and the average age was 35.40 years. They averaged 9.34 years of education and 7.03 years of construction experience. They belonged to 63 work groups. The number of employees in each group ranged from 3 to 12, with an average group size of 5.

Measures

Emotional exhaustion

As in Study 1, we assessed emotional exhaustion using Schaufeli et al.'s (1996) five-item scale ($\alpha = .86$).

Job security

As in Study 1, respondents assessed their job security using Kuhnert and Vance's (1992) five-item job security scale ($\alpha = .94$).

Prohibitive voice

Coworkers assessed prohibitive voice of the focal employee using the same scale (Liang et al., 2012) as in Study 1 ($\alpha = .84$).

Promotive voice

Coworkers assessed promotive voice of the focal employee using the five-item scale developed by Liang et al. (2012). Two example items are "Proactively develop and make suggestions for issues that may influence the unit" and "Proactively suggest new projects which are beneficial to the work unit" ($\alpha = .94$).

Interactional justice climate

Respondents assessed perceived interactional justice using the six-item scale developed by Moorman (1991) ($\alpha = .89$), which was adapted so that the group was the referent. An example item is "My supervisor takes steps to deal with our team members in a truthful manner." We then aggregated this measure to the group level. The range of $r_{wg(j)}$ was (0.15, 0.99) with median $r_{wg(j)} = .94$. In addition, $F(62, 252) = 1.70$, $p < .01$; ICC[1] = .12; and ICC[2] = .41. It is worth noting that the ICC[2] values are relatively low. However, they should not prevent aggregation if $r_{wg(j)}$ is high and group variance is significant (Chen & Bliese, 2002; Kozlowski & Hattrup, 1992). These ICC[2] values are comparable to those of aggregated constructs reported in previous research (e.g., Bono & Judge, 2003; Liao & Chuang, 2007). We proceeded with aggregation, bearing in mind that "the relationships between the

aggregated measures with low ICC[2] and the other study variables might be underestimated” (Liao & Chuang, 2007, p. 1012).

Control variables

The same variables used in Study 1 (gender, age, education level, industrial tenure, and relation with supervisor) were controlled during analysis.

Results and discussion

Multi-level CFA first tested the discriminant validity of the five constructs (emotional exhaustion, job security, interactional justice climate, prohibitive voice, and promotive voice). CFA tests suggested that the constructs were distinct and the five-factor measurement model fit the data better ($\chi^2=435.14$, $df=289$, $p<.001$; SRMR=.04, RMSEA=.04, CFI=.96, TLI=.95) than the alternative four-factor model (prohibitive voice and promotive voice were combined) ($\Delta\chi^2=344.20$, $\Delta df=4$, $p<.001$). The five-factor measurement model also provided better fit to the data than the other alternative models. Detailed comparisons with other alternative model are available from the corresponding author.

Table 3 presents the means, standard deviations, and correlations for all variables in Study 2. Table 4 presents HLM tests of the effects of emotional exhaustion on prohibitive voice and promotive voice.

Hypothesis 1 predicts that emotional exhaustion has a negative relationship with prohibitive voice when job security is low (Hypothesis 1a) and a U-shaped relationship with prohibitive voice when job security is high (Hypothesis 1b). Study 2 provided added support for these hypotheses as the findings were replicated. As shown in Table 4, the results in Model 5 revealed that job security significantly moderated the relationship between emotional exhaustion-squared and prohibitive voice ($\hat{\gamma}=.14$, $p<.001$). Consistent with the findings in Study 1, analysis regarding simple slopes showed that in the condition of low job security, the relationship between emotional exhaustion and prohibitive voice was linearly negative as the coefficient for emotional exhaustion-squared was not significant ($\hat{\gamma}=.09$, *ns*) and the coefficient for emotional exhaustion was significant and negative ($\hat{\gamma}=-.12$, $p<.05$) when excluding emotional exhaustion-squared. Conversely, in the condition of high job security, the relationship between emotional exhaustion and prohibitive voice was U-shaped as reflected by the significant coefficient for emotional exhaustion-squared ($\hat{\gamma}=.12$, $p<.01$).

Hypothesis 2 proposes that emotional exhaustion has a negative relationship with prohibitive voice when interactional justice climate is low and a U-shaped relationship with prohibitive voice when interactional justice climate is high. The findings for Hypothesis 2 also remained consistent across both studies and were replicated in Study 2 as indicated by Model 7. Interactional justice climate significantly moderated the relationship between emotional exhaustion-squared and prohibitive voice ($\hat{\gamma}=.22$, $p<.01$). Similar to Study 1, we found that in the condition of low interactional justice climate, the relationship between emotional exhaustion and prohibitive voice was linearly negative as the coefficient for emotional exhaustion-squared was not significant ($\hat{\gamma}=.02$, *ns*), while the coefficient for emotional exhaustion was significant when emotional exhaustion-squared was not included ($\hat{\gamma}=-.15$, $p<.01$). Conversely, in the condition of high interactional justice climate, the relationship between emotional exhaustion and prohibitive voice was U-shaped with a significant coefficient for emotional exhaustion-squared ($\hat{\gamma}=.13$, $p<.01$).

We also tested each of the hypothesized relationships with regard to promotive voice in Table 4. We found that only job security had a significant moderating effect on the relationship between emotional exhaustion-squared and promotive voice ($\hat{\gamma}=.12$, $p<.05$), while interactional justice climate did not ($\hat{\gamma}=.15$, *ns*). Simple slope analysis indicated that in the condition of low job security, the relationship between emotional exhaustion and promotive voice was linearly negative as the coefficient for emotional exhaustion-squared was not significant ($\hat{\gamma}=-.06$, *ns*), while the coefficient for emotional exhaustion was negative and significant ($\hat{\gamma}=-.25$, $p<.001$) when excluding emotional exhaustion-squared. But, in the condition of high job security, the relationship between emotional

Table 3. Means, standard deviations, and correlations in Study 2^a.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. Gender	0.94	0.24										
2. Age	35.40	10.62	-.04									
3. Education	9.34	3.12	-.02	-.28***								
4. Industrial tenure	7.03	8.07	.09	.54***	-.07							
5. Relation with supervisor: relative (relative = 1, others = 0)	0.07	0.25	-.15**	.06	.00	-.05						
6. Relation with supervisor: fellow-townswoman or fellow- townswoman (fellow- townswoman or fellow- townswoman = 1, others = 0)	0.34	0.47	.01	-.08	-.15**	-.15**	-.20***					
7. Emotional exhaustion	2.58	0.79	-.06	-.06	-.02	.03	.04	-.02				
8. Job security	3.37	0.71	-.08	.17**	-.18**	-.07	.15**	.09	-.20***			
9. Interactional justice climate ^b	3.40	0.33	-.09	.15**	-.10	-.08	.10	.13*	-.23***	.45***		
10. Prohibitive voice	3.65	0.54	-.01	.05	-.00	-.09	.12*	.15**	-.09	.12*	.21***	
11. Promotive voice	3.62	0.65	.02	.00	.00	.05	.02	.08	-.21***	.09	.16**	.39***

^a*N*(group) = 63.^bGroup level.**p* < .05. ***p* < .01. ****p* < .001.

Table 4. Hierarchical linear modeling (HLM) results: The effects of job security and interactional justice climate on the relationship between emotional exhaustion and prohibitive and promotive voice in Study 2.

Level and variables	Prohibitive voice						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	3.66***	3.50***	3.50***	3.49***	3.46***	2.72***	3.14***
Gender		0.06	0.05	0.05	0.09	0.07	0.15
Age		0.01	0.01	0.01	0.01	0.01	0.00
Education		0.01	0.01	0.01	0.00	0.01	0.01
Industrial tenure		−0.01	−0.01	−0.01	−0.01	−0.01	−0.01
Relation with supervisor: relative		0.31*	0.31*	0.30*	0.29*	0.28*	0.25*
Relation with supervisor: fellow-townswoman or fellow-townswoman		0.21**	0.20**	0.20**	0.19**	0.18**	0.18**
Emotional exhaustion			−0.05	−0.05	−0.03	−0.04	−1.12**
Emotional exhaustion-squared			0.04	0.03	0.04	0.03	−0.65*
Job security				0.02	−0.07		
Job security × Emotional exhaustion					0.08		
Job security × emotional exhaustion-squared					0.14**		
Interactional justice climate						0.22*	0.08
Emotional exhaustion × interactional justice climate							0.32**
Emotional exhaustion-squared × interactional justice climate							0.22*
σ^2	.26	.25	.25	.25	.23	.25	.23
τ (intercept)	.03	.03	.02	.02	.03	.02	.03
Variance explained ^a		.04	.04	.04	.12	.04	.12
<i>N</i> (level 1)	315	315	315	315	315	315	315
<i>N</i> (level 2)	63	63	63	63	63	63	63
−2 log likelihood	499.13	478.05	478.05	477.80	460.32	473.63	457.73

^aThe proportion was calculated based on the parameters in Models 1 and 8, respectively.

* $p < .05$. ** $p < .01$. *** $p < .001$.

exhaustion and promotive voice was U-shaped as the coefficient for emotional exhaustion-squared was significant ($\hat{\gamma} = .10, p < .05$). In addition, although the interaction term of interactional justice climate and emotional exhaustion-squared was not significant, we also conducted simple slope analysis for high versus low interactional justice climate. In the condition of low interactional justice climate, the relationship between emotional exhaustion and promotive voice was linearly negative as the coefficient for emotional exhaustion-squared was not significant ($\hat{\gamma} = .04, ns$), while the coefficient for emotional exhaustion was significant ($\hat{\gamma} = -.30, p < .001$) when emotional exhaustion-squared was not included. Conversely, in the condition of high interactional justice climate, the relationship between emotional exhaustion and promotive voice was not U-shaped or linear significantly as reflected by a non-significant coefficient for emotional exhaustion-squared ($\hat{\gamma} = .08, ns$) and a non-significant coefficient for emotional exhaustion ($\hat{\gamma} = -.04, ns$) when emotional exhaustion-squared was not included.

To test whether the difference in magnitude of the relationships between emotional exhaustion and the two types of voice is indeed statistically significant requires a test of the difference between coefficients for different dependent variables from a single sample (Cohen, Cohen, West, & Aiken, 2003). To test Hypothesis 3, following the testing procedure suggested by Cohen et al. (2003), we first calculated the difference between prohibitive voice and the predicted value of promotive voice derived from the regression

Table 4. (Continued)

Promotive voice						
Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
3.62***	3.54***	3.56***	3.56***	3.52***	2.73***	2.97***
	−0.00	−0.03	−0.02	0.03	−0.00	0.07
	−0.00	−0.00	−0.00	−0.01	−0.01	−0.01
	0.00	0.00	0.00	0.00	0.00	0.00
	0.01	0.01	0.01	0.01	0.01	0.01
	0.13	0.14	0.13	0.12	0.11	0.08
	0.19*	0.16	0.15	0.14	0.13	0.12
		−0.18***	−0.18***	−0.17***	−0.16***	−1.11*
		0.03	0.03	0.04	0.03	−0.42
			0.04	−0.05		
				0.11		
				0.12*		
					0.24*	0.15
						0.28*
						0.15
.40	.39	.38	.38	.37	.38	.38
.03	.04	.02	.02	.02	.02	.01
	.03	.05	.05	.08	.05	.05
315	315	315	315	315	315	315
63	63	63	63	63	63	63
623.58	617.94	603.58	603.06	591.34	599.80	593.24

equation with the independent variables—emotional exhaustion and control variables. Then, we ran the regression of this difference. If the coefficient of emotional exhaustion in this regression equation is positive and significant, it indicates that the relationship between emotional exhaustion and prohibitive voice is statistically more positive than the relationship between emotional exhaustion and promotive voice, and vice versa. Results from this analytic approach are reported in Table 5. Specifically, when job security or interactional justice climate was low, emotional exhaustion had a negative-linear association with both prohibitive voice and promotive voice as reflected by previous analyses. The significant positive coefficients for emotional exhaustion in the first ($\Delta\hat{\gamma} = .13, p < .05$) and third columns ($\Delta\hat{\gamma} = .15, p < .01$) of Table 5 supported Hypothesis 3. That is, when job security or interactional justice climate was low, emotional exhaustion had a stronger negative association with promotive voice than prohibitive voice. Figure 4 demonstrates these relationships.

Under conditions when job security or interactional justice climate was high, emotional exhaustion had a U-shaped association with both prohibitive voice and promotive voice, as reflected by the previous analyses. The significant positive coefficients for emotional exhaustion in the second ($\Delta\hat{\gamma} = .12, p < .05$) and fourth columns ($\Delta\hat{\gamma} = .11, p < .05$) of Table 5 supported Hypothesis 4. That is, when job security or interactional justice climate was high, at high levels of emotional exhaustion, there was a stronger

Table 5. Hierarchical linear modeling (HLM) results of comparison analyses in Study 2^a.

Level and variables	Prohibitive voice versus promotive voice			
	Job security		Interactional justice climate	
	Low	High	Low	High
	Model 1	Model 2	Model 3	Model 4
Intercept	−0.29 (0.20)	0.11 (0.17)	−0.20 (0.19)	0.09 (0.17)
Gender	0.24 (0.20)	−0.06 (0.16)	0.12 (0.19)	−0.01 (0.16)
Age	0.01* (0.01)	0.01* (0.00)	0.02** (0.01)	0.01* (0.00)
Education	0.03 (0.01)	−0.00 (0.01)	0.02 (0.02)	−0.01 (0.01)
Industrial tenure	−0.02* (0.01)	−0.02* (0.01)	−0.02*** (0.01)	−0.01 (0.01)
Relation with supervisor: relative	−0.11 (0.29)	0.17 (0.14)	−0.04 (0.30)	0.13 (0.13)
Relation with supervisor: fellow-townsmen or fellow-townswoman	0.25** (0.10)	−0.11 (0.09)	0.37*** (0.10)	−0.18* (0.08)
Emotional exhaustion-squared	0.13* (0.06)	0.11* (0.05)	0.15** (0.06)	0.12* (0.05)
<i>N</i> (level 1)	149	166	145	170
<i>N</i> (level 2)	55	57	31	32
−2 log likelihood	208.48	250.79	214.77	234.10

^aThe standard errors in the estimations are reported in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$.

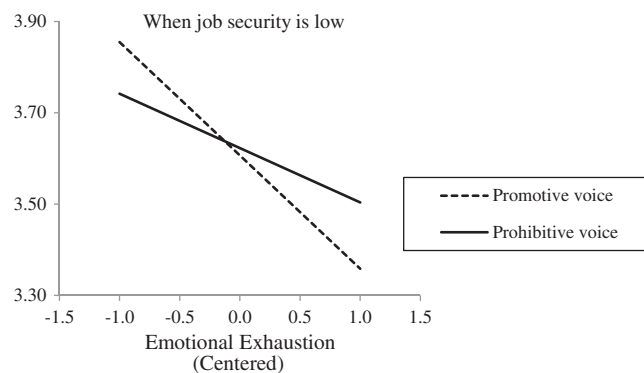


Figure 4. Relationship between emotional exhaustion and prohibitive/promotive voice when job security is low (Study 2). Note: Similar relationships between emotional exhaustion and prohibitive/promotive voice are exhibited when interactional justice climate is low

positive association with prohibitive voice than promotive voice, while at low levels of emotional exhaustion, there was a stronger negative association with promotive voice than prohibitive voice. Figure 5 illustrates these relationships.

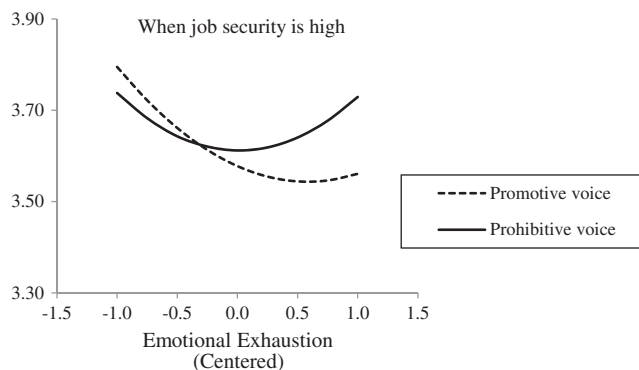


Figure 5. Relationship between emotional exhaustion and prohibitive/promotive voice when job security is high (Study 2).
 Note: Similar relationships between emotional exhaustion and prohibitive/promotive voice are exhibited when interactional justice climate is high

Conclusion and Discussion

The two studies presented earlier provide evidence of the potential curvilinear relationship between emotional exhaustion and voice. We presented and tested a model that integrates the competing tenets of COR theory (Hobfoll, 1998; Hobfoll & Freedy, 1993). Despite prominent evidence in support of the resource-conservation-based perspective (Ng & Feldman, 2012), we found that the presence of individual-level and group-level resources (job security and interactional justice climate) may trigger resource-acquisition motivation at high levels of emotional exhaustion as well. Specifically, the findings support notions that job security and interactional justice climate may affect the perceived costs and benefits of enacting voice and encourage employees to speak up against harmful practices once they have reached their emotional exhaustion threshold. That is, while employees with low levels of these resources exhibit a negative-linear relationship with prohibitive voice and continuously respond with resource conservation, employees with high levels of these resources exhibit a curvilinear (U-shaped) relationship wherein resource-acquisition motivation is triggered, thereby making these workers more likely to express concerns at both high and low levels of exhaustion than at medium levels.

The findings also indicated that these factors had differential effects with respect to promotive versus prohibitive voice. While the nature of the relationships appears to be consistent across both types of voice, only job security had a significant moderating effect on the relationship between emotional exhaustion and promotive voice. Additionally, a stronger negative relationship was found between emotional exhaustion and promotive voice under conditions that were theorized to engender resource-conservation motivation, whereas a stronger positive relation was found with prohibitive voice under conditions that were suggested to elicit resource-acquisition motives.

Theoretical implications

By investigating the relationship between emotional exhaustion and both prohibitive and promotive voice, we attempt to enrich the theoretical and empirical foundations of the voice literature. An important implication of this study is greater delineation of the promotive and prohibitive elements of voice. The findings highlighted that prohibitive voice may be more salient for employees experiencing psychological strain as it is aimed at more immediate and short-term resolutions. Furthermore, resources that enhance the perceived safety and efficacy of voice appear to play a more vital role in the expression of prohibitive voice than promotive voice. These findings underscore the need to advance conceptualizations of voice so as to systematically address how the factors behind voice may

vary depending on the types of messages being communicated (Morrison, 2011). Continued research as to the circumstances in which either form of voice is of greater or lesser importance will be valuable to furthering our understanding of these concepts.

Moreover, the model presented in this study complements and extends extant frameworks that cast emotional exhaustion as an antecedent of other important outcomes such as organizational commitment, job performance, organizational citizenship behavior, and counterproductive work behavior (e.g., Halbesleben & Bowler, 2007; Wright & Bonett, 1997; Wright & Cropanzano, 1998). This framework may be useful in explaining other change-oriented extra role behaviors as well. Of note though, this study was concerned with emotional exhaustion arising from the work domain. Given that emotional exhaustion may also stem from factors in other spheres of life, future research might consider the influence of theoretically related constructs, such as work–family conflict and work–life balance, in the emotional exhaustion–voice relationship.

Additionally, given our theoretical basis and finding regarding job security, we wonder if this model can also be expanded to address broader career-related behaviors and offer a means to shed new light on existing job search and turnover models. Given that scholars have noted the fairly weak influence of dissatisfaction on turnover (Griffeth et al., 2000; Lee, Gerhart, Weller, & Trevor, 2008), we wonder if this may, to some degree, be explained by the occurrence of resource-conservation-based motivation and the factors that may hinder or facilitate this response (e.g., employability, embeddedness, and labor market conditions).

Furthermore, in response to calls to study potential curvilinear and moderator effects in order to avoid poor validities and inconsistent results (LePine & Van Dyne, 1998; Tangirala & Ramanujam, 2008), we tested the possibility of nonlinear relationships between voice and emotional exhaustion, and replicated the findings across two studies. Drawing attention to these nonlinear relationships provides added nuance to our understanding of these relationships beyond merely investigations of linear effects. We suggest that research continue to explore potential nonlinear relationships, rather than devoting all efforts toward linear relationships (Tangirala & Ramanujam, 2008) with less explanatory power.

Managerial implications

In interpreting our results, it is important to note that we are *not* advocating that managers somehow try to increase levels of emotional exhaustion in order to induce employee voice behavior. Rather, the downward slope (at low levels of emotional exhaustion) from our results suggests that managers can promote prohibitive voice by reducing employees' emotional exhaustion. In today's hypercompetitive business environment, it may be difficult for management to recognize and stem all potential problems. The stressors, which deplete employees' resources and cause emotional exhaustion, in essence imply the implicit and potential problems, even failures, of extant organizational practices, processes, and functions. That is, these stressors not only lead to employees' emotional exhaustion but also may be harmful to organizations. Therefore, it is likely that efforts to enhance prohibitive voice by reducing emotional exhaustion might be accompanied by additional benefits to the organization.

It may be naïve to expect that all employees will always have low levels of emotional exhaustion. It is necessary to recognize that emotional exhaustion among employees likely signals other organizational problems and offers an opportunity for future improvements. Highly emotionally exhausted workers have more intimate knowledge and information of these stressors, which enable them to point out the potential problems or failures of existing organizational practices. Thus, the U-shaped relationship between emotional exhaustion and prohibitive voice under the effects of some moderators suggests some remedial measures to trigger employees to express their concerns and speak up. Thus, managers can increase prohibitive voice by treating employees with respect so as to create a strong interactional justice climate. By doing so, highly emotionally exhausted employees feel safe in expressing concerns and are encouraged to speak up about potentially harmful factors to the organization.

Limitations and future directions

Although we were able to replicate the findings across two studies, and used multi-level and multi-source research designs, there are some limitations to this research that should be noted. With respect to prohibitive voice, we found empirical support for our model and the existence of an emotional exhaustion threshold, which theoretically represents the point at which resource-conservation motives give way to resource-acquisition motives. While the behaviors reported in our studies reflect these motivations, they were not directly assessed. Future research should consider operationalizing these motivational constructs to provide a direct examination of the role of these, and potentially other, motivational frameworks in the relationship between emotional exhaustion and voice. Similarly, future research should also explicitly measure the proposed causal mechanisms in our model (i.e., the perceived costs and benefits of voice) to directly examine their roles in the association between emotional exhaustion and the two types of voice.

Similarly, future research is needed to identify and investigate other supervisory-related behaviors and characteristics, such as leader–member exchange relationships or trust, and other organizationally based variables, such as family-friendly policies and practices, which may also empower individuals with high emotional exhaustion to engage in voice. Also, individual differences should be considered and addressed, as it seems likely that certain characteristics, including core self-evaluations or proactive career orientations, may influence one's tolerance for risk and dictate whether workers initiate voice or remain silent in response to emotional exhaustion.

Finally, it should be noted that the samples from both studies come from the construction industry in China. Thus far, the limited research on prohibitive voice has been conducted in China. Although the theoretical bases used in this paper are not culturally specific, we recommend that future research on the differences in promotive and prohibitive voice takes place in different cultural settings to determine the generalizability of the findings. Additionally, it will be useful for future studies to address white collar workers and to consider the role that job level may play in the relationships between emotional exhaustion and voice. It is feasible that higher-level workers have greater control over their work and in the labor market, potentially suggesting similar effects as were found regarding job security in this study. Future research along these lines can both deepen our understanding of these relationships and determine the extent to which our findings generalize to other ranks and occupations.

Conclusion

Unlike the traditional view that posits that emotional exhaustion is always detrimental for employees and organizations, this study examines conditions under which high levels of emotional exhaustion may magnify employees' propensity to enact prohibitive voice behavior. We integrated the *resource-conservation* and *resource-acquisition* tenets of COR theory to explore the potential nonlinear response to emotional exhaustion with prohibitive voice, contingent upon factors that may influence perceived safety and efficacy, and thereby costs and benefits, of enacting voice. As hypothesized, the results indicated that the relationship between emotional exhaustion and prohibitive voice was moderated by individual-level job security and group-level interactional justice climate. Specifically, emotional exhaustion had a negative-linear relationship with prohibitive voice when employees had low job security and worked in low interactional justice climate, but had a U-shaped relationship with prohibitive voice when these resources were high. We also found that these factors had different effects with respect to prohibitive versus promotive voice. Stronger negative effects were found on promotive voice when emotional exhaustion was low or when workers did not have job security or interactional justice climate. Stronger positive effects were found on prohibitive voice when emotional exhaustion was high and accompanied by high job security or interactional justice climate. As such, these findings add to nascent literature on prohibitive voice and provide preliminary evidence as to differences among the nomological networks of promotive versus prohibitive voice. Additionally, this research indicates that prohibitive voice is more relevant than to situations of high strain when individual needs are pressing and immediate

actionable remedies are warranted. As such, this work has helped refine our conceptualization of voice and increased our understanding of variance in the factors that contribute to suggestion-focused versus problem-focused messages.

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Author biographies

Xin Qin is an assistant professor in the Sun Yat-sen Business School, Sun Yat-sen University, and also is a Fulbright Visiting Scholar in Harvard Business School. He received his PhD in organizational management from Guanghua School of Management, Peking University. His research focuses justice, creativity, voice, and turnover. He has published papers in *Journal of Occupational and Organizational Psychology*, *Management and Organization Review*, *Management World*, and so on.

Marco S. DiRenzo is an assistant professor in the Graduate School of Business and Public Policy at the Naval Postgraduate School. He received his PhD in organizational behavior from Drexel University. He currently serves on the editorial board for *Journal of Vocational Behavior*. He has published papers in academic journals such as *Academy of Management Review* and *Journal of Vocational Behavior*. His research focuses on the intersection of career development, leadership and team processes, and the work/life interface.

Minya Xu is currently an associate professor at Guanghua School of Management, Peking University. She earned her PhD from Rutgers, the State University of New Jersey. She majored in statistics and specialized in application of statistical methods to management. In recent years, she has conducted research in employee job strain, voice, deviant behavior, and turnover. Her research has been published in the *Annals of Statistics*, *Biometrika*, *Journal of Statistical Planning and Inference*, *Journal of Occupational and Organizational Psychology*, and so on.

Yilong Duan earned his MBA in Guanghua School of Management, Peking University. He now works in China Railway 16th Bureau Group Co., Ltd. He has been in the construction industry for 14 years, having a profound understanding of the construction industry and workers in this industry. He has published a number of articles on construction.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Ashford, S. J., Rothbard, N. P., Piderit, S. K., & Dutton, J. E. (1998). Out on a limb: The role of context and impression management in selling gender-equity issues. *Administrative Science Quarterly*, 43, 23–57.
- Blau, P. (1964). *Exchange and power in social life*. New York: Wiley.

- Bliese, P. D., & Halverson, R. R. (1998). Group size and measures of group-level properties: An examination of eta-squared and ICC values. *Journal of Management*, 24, 157–172.
- Bolino, M. C., & Turnley, W. H. (2005). The personal costs of citizenship behavior: The relationship between individual initiative and role overload, job stress, and work–family conflict. *Journal of Applied Psychology*, 90, 740–748.
- Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management Journal*, 46, 554–571.
- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis, & J. W. Berry (Eds.), *Handbook of cross-cultural psychology* (Vol. 2, pp. 389–444). Boston: Allyn & Bacon.
- Burris, E. R., Detert, J. R., & Chiaburu, D. S. (2008). Quitting before leaving: The mediating effects of psychological attachment and detachment on voice. *Journal of Applied Psychology*, 93, 912–922.
- Chen, G., & Bliese, P. D. (2002). The role of different levels of leadership in predicting self- and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology*, 87, 549–556.
- Choi, J. N. (2007). Change-oriented organizational citizenship behavior: Effects of work environment characteristics and intervening psychological processes. *Journal of Organizational Behavior*, 28, 467–484.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale: Erlbaum.
- Conger, J. A., & Kanungo, B. N. (1988). The empowerment process: Integrating theory and practice. *Academy of Management Review*, 13, 471–482.
- Cordes, C. L., & Dougherty, T. W. (1993). A review and integration of research on job burnout. *Academy of Management Review*, 18, 621–656.
- Cropanzano, R., Prehar, C. A., & Chen, P. Y. (2002). Using social exchange theory to distinguish procedural from interactional justice. *Group & Organization Management*, 27, 324–351.
- Detert, J. R., & Burris, E. R. (2007). Leadership behavior and employee voice: Is the door really open? *Academy of Management Journal*, 50, 869–884.
- DiRenzo, M. S., & Greenhaus, J. H. (2011). Job search and voluntary turnover in a boundaryless world: A control theory perspective. *Academy of Management Review*, 36, 567–589.
- Dundon, T., & Gollan, P. J. (2007). Re-conceptualizing voice in the non-union workplace. *International Journal of Human Resource Management*, 18, 1182–1198.
- Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44, 350–383.
- Farh, C. I. C., Tangirala, S., & Liang, J. (2010). Thinking before speaking: Employee cognitive engagement in change as a precursor to voice. Paper presented at the annual meeting of the Academy of Management, Montreal.
- Ford, R. C., & Fottler, M. D. (1995). Empowerment: A matter of degree. *Academy of Management Executives*, 9, 21–29.
- Frese, M., Teng, E., & Wijnen, C. J. D. (1999). Helping to improve suggestion systems: Predictors of making suggestions in companies. *Journal of Organizational Behavior*, 20, 1139–1155.
- Greenhaus, J. H., Callanan, G. A., & DiRenzo, M. (2008). A boundaryless perspective on careers. In J. Barling (Ed.), *Handbook of organizational behavior* (pp. 277–299). Thousand Oaks, CA: Sage.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26, 463–488.
- Halbesleben, J. R. B., & Bowler, W. M. (2007). Emotional exhaustion and job performance: The mediating role of motivation. *Journal of Applied Psychology*, 92, 93–106.
- Hartley, J., Jacobson, D., Klandermans, B., & van Vuuren, T. (1991). *Job insecurity: Coping with jobs at risk*. London: Sage.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American psychologist*, 44, 513.
- Hobfoll, S. E. (1998). *Stress, culture, and community*. New York: Plenum.
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: advancing conservation of resources theory. *Applied Psychology*, 50, 337–421.
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6, 307–324.
- Hobfoll, S. E., & Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. In W. B. Schaufeli, C. Maslach, & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 115–129). Washington, DC: Taylor & Francis.
- Ito, J. K., & Brotheridge, C. M. (2003). Resources, coping strategies, and emotional exhaustion: A conservation of resources perspective. *Journal of Vocational Behavior*, 63, 490–509.
- Kozlowski, S. W. J., & Hattrup, K. (1992). A disagreement about within-group agreement: Disentangling issues of consistency versus consensus. *Journal of Applied Psychology*, 77, 161–167.
- Kraimer, M. L., Wayne, S. J., Liden, R. C., & Sparrowe, R. T. (2005). The role of job security in understanding the relationship between employees' perceptions of temporary workers and employees' performance. *Journal of Applied Psychology*, 90, 389–398.

- Kuhnert, K. W., & Vance, R. J. (1992). Job insecurity and moderators of the relation between job insecurity and employee adjustment. In J. C. Quick, L. R. Murphy, & J. J. Hurrell, Jr. (Eds.), *Stress and well-being at work: Assessments and interventions for occupational mental health* (pp. 48–63). Washington, DC: American Psychological Association.
- Lee, T. W., Gerhart, B., Weller, I., & Trevor, C. O. (2008). Understanding voluntary turnover: Path-specific job satisfaction effects and the importance of unsolicited job offers. *Academy of Management Journal*, 51, 651–671.
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology*, 83, 853–868.
- LePine, J. A., & Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: evidence of differential relationships with big five personality characteristics and cognitive ability. *Journal of Applied Psychology*, 86, 326.
- Liang, J., Farh, C. I. C., & Farh, J. L. (2012). Psychological antecedents of promotive and prohibitive voice: A two-wave examination. *Academy of Management Journal*, 55, 71–92.
- Liao, H., & Chuang, A. (2007). Transforming service employees and climate: A multilevel multi-source examination of transformational leadership in building long-term service relationships. *Journal of Applied Psychology*, 92, 1006–1019.
- Liu, W., Zhu, R., & Yang, Y. (2010). I warn you because I like you: Voice behavior, employee identifications, and transformational leadership. *Leadership Quarterly*, 21, 189–202.
- Luria, G., Gal, I., & Yagil, D. (2009). Employees' willingness to report service complaints. *Journal of Service Research*, 12, 156–174.
- Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice Hall.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Mayer, D., Nishii, L., Schneider, B., & Goldstein, H. (2007). The precursors and products of justice climates: Group leader antecedents and employee attitudinal consequences. *Personnel Psychology*, 60, 929–963.
- Milliken, F. J., Morrison, E. W., & Hewlin, P. F. (2003). An exploratory study of employee silence: Issues that employees don't communicate upward and why. *Journal of Management Studies*, 40, 1453–1476.
- Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76, 845–855.
- Morrison, E. W. (2011). Employee voice behavior: Integration and directions for future research. *Academy of Management Annals*, 5, 373–412.
- Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management Review*, 25, 706–725.
- Ng, T. W., & Feldman, D. C. (2012). Employee voice behavior: A meta-analytic test of the conservation of resources framework. *Journal of Organizational Behavior*, 33, 216–234.
- Ostroff, C., Kinicki, A. J., & Clark, M. A. (2002). Substantive and operational issues of response bias across levels of analysis: An example of climate-satisfaction relationships. *Journal of Applied Psychology*, 87, 355–368.
- Perlow, L., & Williams, S. (2003). Is silence killing your company? *Harvard Business Review*, 81, 52–58.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 65, 539–569.
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). *MBI-general survey*. Palo Alto, CA: Consulting Psychologists Press.
- Siegall, M., & McDonald, T. (2004). Person–organization congruence, burnout, and diversion of resources. *Personnel Review*, 33, 291–301.
- Spector, P. E., & Brannick, M. T. (2011). Methodological urban legends: The misuse of statistical control variables. *Organizational Research Methods*, 14, 287–305.
- Spencer, D. G. (1986). Employee voice and employee retention. *Academy of Management Journal*, 29, 488–502.
- Tangirala, S., & Ramanujam, R. (2008). Exploring non-linearity in employee voice: The effects of personal control and organizational identification. *Academy of Management Journal*, 51, 1189–1203.
- Van Dyne, L., Kamdar, D., & Joireman, J. (2008). In-role perceptions buffer the negative impact of low LMX on helping and enhance the positive impact of high LMX on voice. *Journal of Applied Psychology*, 93, 1195–1207.
- Van Dyne, L., & LePine, J. A. (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41, 108–119.
- Wallace, J. C., Popp, E., & Mondore, C. (2006). Safety climate as a mediator between foundation climates and occupational accidents: A group-level investigation. *Journal of Applied Psychology*, 91, 681–688.
- Wright, T. A., & Bonett, D. G. (1997). The contribution of burnout to work performance. *Journal of Organizational Behavior*, 18, 491–499.
- Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83, 486–493.
- Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management Journal*, 44, 682–696.